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ABSTRACT

The final report of the year long Interdisciplinary Support Classes Project at Banks High School, Banks, Oregon, is presented. Six cluster and noncluster staff members were involved in jointly developing and improving student instruction through interdisciplinary approaches. Outcomes for the 300-310 students in grades 9-12 included the development of: two direct support courses (career English, and practical [Career] math); three indirect support courses (vocabulary improvement, developmental reading, and basic skills); a common electricity and wiring unit; and units for English classes supplementing career English. Student access to special courses was encouraged through the reworking of the school schedule. Course outlines for the two direct support courses are presented: (1) career English, focusing on the communication skills of listening, speaking, reading, writing, and self-evaluation activities emphasized in the business world; and (2) practical (career) math, outlining a possible course of 14-26 weeks which applies mathematical skills to a variety of career cluster problems. The project will be continued for the following year. (LH)

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FINAL REPORT

INTERDISCIPLINARY SUPPORT CLASSES

Project No. 34-013-010

Grant No.

James Alfred Smith
Project Director

Banks High School District 13

Banks, Oregon

June 1974

State Department of Education

Community Colleges and Career Educations

Exemplary Project

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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ABSTRACT

TITLE: Interdisciplinary Support Classes

INSTITUTION: Banks High School, Banks School District #13

PROJECT DIRECTOR: James Alfred Smith, Principal
P. O. Box 38
Banks, oregon 97106
324-2281

COSTS:	Federal	Local	Other	Total
	$850.00	$2,484.00	- - -	$3,334.06

NUMBER OF STUDENTS AFFECTED: 300/year

NUMBER OF STAFF INVOLVED: 6/year

PROJECT DESCRIPTION:

Banks High School is a relatively small rural high school with an enrollment of 300-310 students in grades nine through twelve. The program has been a tradition one based upon year courses with little or no cross discipline planning or cooperation.

PURPOSE:

The purpose of the Interdisciplinary Support Classes Project was to develop support classes for career cluster within the English and Math Department; to develop common cross cluster units or mini courses: to develop support materials for use by career cluster students in regular classes; to generally improve the quality of instruction to career cluster students and others by more efficient arrangement of classes so as to get a better utilization of staff talent.

PROJECT DURATION: June 1973 to July 1974

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INTERDISCIPLINARY SUPPORT CLASSES PROJECT

PROCEDURES AND OUTCOMES:

The project involved cluster and non cluster staff members jointly studying and developing or selecting courses units and materials to improve student instruction through interdisciplinary approaches.

Released time and in-service days were made available for visitations, material searches and evaluation, cross department planning and preparing of curriculum materials and guides.

Outcomes of the project have been:

1. The development of two direct support courses; Career English and Career Math.
2. Development of three indirect support courses; Vocabulary Imporvement, Developmental Reading and Basic Skills.
3. Development of a common electricity and wiring unit for Agriculture and Construction.
4. The preparation of units by cluster teachers for use in English classes; the reworking of the school master schedule and course configurations to provide student access to special courses; and provided for the expansion of the concepts developed to other curriculum areas not included in the project.

BACKGROUND:

At the start of the project Banks High School had a traditional semester and year based course offering on six period/day schedule. There was little or no cross department planning or cooperation. The original proposal was made by career cluster teachers who were asking for better prepared students from the English and Math teachers. A small group met to discuss the problem. A three teacher delegation was sent to the State Department of Education in Salem to gain ideas and investigate possible funds. Small group sessions were held to refine the projects goals. These were:

1. To facilitate means whereby cluster instructors may develop and coordinate pre-cluster and career cluster basic units that may be provided

BACKGROUND (Cont)

across cluster lines in order to increase the availability of offering to students and improve instruction in these areas. In essence, this will create shared teaching units in order to create a more effective small school cluster program.

2. To facilitate developmental and support courses for career cluster and pre-cluster students through interdisciplinary cooperation among career cluster, language arts and mathematics instructors. These courses are to provide programs which directly relate communication and mathematics skills to career clusters.

3. To foster improved overall instructional services by utilizing staff members best prepared to provide instruction and to relate that instruction to the students career cluster. Career cluster and Language Arts and Mathematics instructors will jointly plan, select materials and coordinate support and basic courses in pre-cluster and cluster areas. This should lead to more realistic approaches to basic skills and processes and begin a more individualized approach adapted to the interest and needs of each student.

MAJOR OUTCOMES:

Six staff members were involved in the project. The total student population, 310 students, were affected by outcomes of the project. The major accomplishment of the project was the move to nine week courses that revolve through several periods during different quarters to provide easier access to courses. Two support courses; Career English and Career Math were developed. Individual units that would benefit a wide range of career cluster students and other students have been developed or identified in the business area such as record keeping, business machines, etc. that are available on either a nine week basis or for individual study. A common electricity and wiring class has been developed for Agriculture and Construction which is also open on a space available basis to other students. Special units have been developed for use in English and Career Math classes to aid students in or preparing for clusters. A staff wide committee to study more effective scheduling and time allocation has been constituted for next year. Within the English Department three courses, Developmental Reading, Vocabulary Improvement and Basic Skills were developed to meet some of the needs

MAJOR OUTCOMES:(cont)

that could not be met within Career English.

Staff development was an integral part of course and material development. Working both in small groups and jointly on either common or interdisciplinary phases of the project staff members defined issues and evaluated alternatives. The major growth that occured was as staff members discovered, they could solve problems and/or found better alternatives without either having to "lose" anything material or spiritual. The sense of being able to accomplish things has carried over to other areas and will continue next year. Workshops courses and visitations were used to gather a wider variety of ideas and possibilities.

EVALUATION:

Two evaluations were conducted by an outside team from Sherwood High School and the Washington County Intermediate Education District.

SUMMARY AND CONCLUSIONS:

The project will continue next year through a staff wide committee on scheduling and time allocation and the refining of course statements for Oregons' new graduation requirements. The possibilities for interdisciplinary cooperation have become apparent and are now institutionalized as part of the master schedule and through units developed for classes.

The major conclusion to be drawn would seem to be that given some time and support, staff members can cooperate across cluster and discipline boundaries to find more effective alternatives.

RECOMMENDATIONS:

The most important recommendation is that the systematic assessment-definition-plan-implementation-review process be continued. The project has demonstrated the potential of a problem solving approach that deals with communication and perspectives as a means of finding acceptable alternatives across boundaries. A second would be that the process be expanded across the total curriculum and administration.

CAREER ENGLISH

The primary goals in creating the Career English class were to aid students in overcoming their fear of the business world and to supplement communication needs in the cluster areas. Many students (juniors and seniors) needed to improve their communication skills to the extent that they could function effectively with business and on-the-job situations. A nine week class was organized and all areas of communication were included.

LISTENING ACTIVITIES

I begin with ideas taken from Tuning In (Xerox Educational Publications). Students describe objects, places and abstract designs. First they communicate back-to-back; then they experiment using gestures, voice modulation, and more specific details to improve communication.

We send four students outside the room, allowing one other to remain and view a painting. He has to describe this painting to the next student who then describes it to the next, and so on.

We practice giving and following orders. We go over useful practices such as repeating instructions, visualizing the task as it is described, and taking notes.

A cluster teacher explains a task or technique to my class. My students will then relay the information to students in the cluster area who will either act on the information or report it back to the cluster teacher for verification.

Role playing is another possibility for listening exercises and observations. Employer-employee problems; Personnel problems - how to handle. Also three people groups - Interviewer, interviewee and observer. Observer gives opinion of interview.

Evaluation of listening skills is done with student partners and self-evaluation questionnaires.

How to listen; Active listening vs. passive listening.

SPEAKING ACTIVITIES

Speaking situations are intermingled with other activities and skills are discussed and evaluated as students use them. The building of confidence is a large part of the class. Activities prepare students for the job situation as well as necessary business transactions.

The one best activity is a job interview which is video taped and then evaluated by the participants. The students view films and practice interviewing each other before this experience.

A speaker from Trend Systems Incorporated reinforces what students learn about letters, forms and interview procedures. Discussion is encouraged.

Films titled "Job Interviews: Whom would you hire?" (Film A - Three young women, Film B - Three young men) are shown of teenagers applying for jobs. Students are asked to evaluate each and to choose who will be hired. Other films shown are:

"Applying for a Job"
"Business Office - Making Things Happen"
"Choosing a Job"
A Film series "Your Job: Applying"
Finding Right One
Fitting In
Getting Ahead
Good Work Habits
You and Your Boss"

Lists of questions an employer will ask, reasons why people are not hired, and helpful hints for a successful interview are all discussed in class (included in notebook).

Students are often afraid to talk to adults. Armed with a set of questions (included in the notebook) each student interviews an adult who is working at a job the student aspires to hold in the future. Answers are written for the notebook and discussed in class. Adults who visit the class are urged to involve students in discussion.

READING ACTIVITIES

Local bank, insurance, and real estate businessmen visit the class, explaining basic terminology, procedure and company policies. Typical forms are analyzed. Lists of words from these areas are assembled and studied. A general list of business terms is also studied. Quizzes are used for evaluation of learning.

Use of shop manuals and catalogues is planned as a future activity. These can be included in writing business letters, role playing, or reading exercises.

Before letters or business forms are written, examples are read and examined. Our superintendent of schools visits the class and gives his impressions of letters he has received.

Newspaper and want ad exercises are available.

WRITING ACTIVITIES

Writing experiences take many forms. I use the workbook from the text, Business English and Communications. I find that it supplements lesson plans well and can be used to individualize according to students needs. Certain exercises are assigned to the class and others only to individuals. Evaluation in this area comes from quantity of assigned work accomplished satisfactorily.

Writing style and vocabulary are examined and practiced in a unit on business letters. One assignment is to write a letter either requesting information, airing a grievance, or ordering products. The Office Practice class (business cluster) answers each letter personally.

A class from the Agriculture cluster sends us letters requesting information. As extra credit, student research the answers and write replys.

All students write a letter of application and a personal data sheet after examining style and content of sample letters.

Business will supply various forms and copies can be made for the class. Possibilities include applications for jobs, credit, college admission, birth records, loans, work permits, insurance and social security numbers. Other forms are accident reports, voter registration

WRITING ACTIVITIES (Cont)

forms, and many others which students may some day find need to use. These exercises are evaluated on being correct, complete, and clear.

Every department in the high school has been asked to submit a list of basic vocabulary necessary to succeed in that area (college or job entry). Lists are ready and are now being written into individual learning packages. Students will choose an area or two for specialization.

Each student collects his written work for the quarter into a useful notebook.

SELF-EVALUATION

Students complete questionnaires, rating sheets, inventories, and personal data sheets for their notebooks.

Students are able to view themselves in an interview situation. They receive a rating on appearance, attitude, and answers and are then able to respond to these ratings.

Each student goes through the Career Games Laboratory (Educational Progress Corporation) answering questions and discovering whether his vocational decisions are wise.

Students receive a grade for regular attendance. They begin with 100 points and are allowed three sick days. They lose points thereafter: three per day, one if tardy and one if unprepared for class. Most students are conscientious and eager to show responsibility.

This class is organized as a nine week elective. It emphasizes listening, speaking, reading, and writing skills the first half. The second half of the quarter is directed at practical application of these skills (letters of application, personal data sheets, interviews). Handing in the notebook completes the class.

In addition to the sharpening of communication skills, students gain greater awareness of the adult-business world and confidence in themsleves. They are also able to be rewarded for responsibility.

I feel this class has been a success. Students have told me they intend to keep their notebooks for future use! They became good letter writers and evidenced learning in class discussions. Grades were generally high. Community people have given positive comments and eagerly volunteered to help me; my interviewers came from a parent-teacher association meeting one night. The school faculty is behind us in our project because they can see how practical our supporting classes are (English and Math) .

The English department is open to using ideas and materials from other areas of the school. In Developmental Reading, cluster material is used for vocabulary, spelling, and reading activities. Basic Skills is a ninth grade remedial writing class where spelling and grammar are made practical through individualization. Ninth grade classes intend to have a unit on reading a manual. Many more possibilities exist for the future and we are eager to continue our inter-departmental sharing of ideas and needs.

Jean M. Owens

PRACTICAL MATH (CAREER MATH)

We spent the first year calling the class Career Math. This name gave a misnomer as the class is not a class using "career" in the typical definition. I have aimed the class to strengthen students with difficulty in math to make them more successful as students, not further careers, but student careers. The class is geared mainly to freshmen and sophomores.

An important part of the project was working with the other teachers and picking subjects that were pertinent. As an example I went to the drafting teacher and received actual problems that his students would be working with in the ensuing weeks. We then spent time in the math class to work the mathematics of the problems which consisted of adding, subtracting and dividing fractions. Thus a need is immediately shown for the use of fractions. An important part of such a class is consistent contact with career cluster and other teachers to know what math they are using. I draw from them actual problems that my students will be coming in contact with. It must be shown that arithmetic is important and used in a great many ways. From home economics we divided and increased recipes, from ag, percent of pore space in soil and electricity, simple interest from business, and a section on metric measurement at the request of the science department. I stress again the importance of working with other teachers for practical advice and problems. It is helpful to know in which career cluster class each student is enrolled, so you can evaluate needs and improvements from conferences with his other teachers.

POSSIBLE COURSE OUTLINE

1. (1-2 weeks) Career Math - Oriented to a successful career as a student. Diagnostic tests should be administered at the beginning, middle and end of the class. You must have an indication of where a student stands to evaluate his progress. These tests should cover only basic skills of arithmetic.

2. (3-6 weeks) Some individualizing will be necessary in presenting basic skills; especially build competency in the use of fractions and decimal numbers. The students must be able to add, subtract, multiply, and divide whole numbers, fractions and decimals. Work in this area should include problem solving, number games, puzzles and text book work.

POSSIBLE COURSE OUTLINE (cont)

3. (1-2 weeks) While working with fractions do a unit on spacing, (spacing object symmetrically in a given area). Students must be able to place an object picture on a given size paper with even borders, then two objects, then three. This unit is especially good for drafting, some application in home economics and many practical situations. Spacing problems gives work in adding, subtracting and dividing whole number and fractions.

4. (1-2 weeks) Intersperse mental work with arithmetic of small whole numbers and estimating. The student should increase speed in simple operations and learn to estimate answers before finding exact solutions.

5. (2-3 weeks) Work with linear measure. Students should be able to read a rule accureately to 1/16th inch. For more practice in adding and multiplying fractions, extend the unit to include perimeters and area of geometric figures.

6. (2-3 weeks) Students should be able to find needed values from common formulas. This unit should include formulas from all school areas and work areas. (Ag area, volume, interest, boardfeet, electricity, pore space) Instruction should be geared to solutions of formulas not understanding of their purposes. These formulas can be gathered from cluster area teachers.

7. (2-4 weeks) Students should learn to read a word problem and pick out needed information and proper arithmetic procedures to find a solution. Pick practical word problems both job oriented and class work oriented. These can be obtained from career cluster teachers and aid can be obtained from the county I.E.D.

POSSIBLE COURSE OUTLINE (cont)

8. (2-4 weeks) As a change is taking place in the industry of the U.S. and all science classes use metric measurements, students need to understand the basic units of this system. Study only the most common units and prefixes for length, weight, volume and temperature. Show basic comparision between English and Metric system, but then take a "think metric" approach. Get the students to estimate size in metric terms. Helps for this unit can be obtained from Midwest Publications Co. and from U. S. department of Commerce/ National Bureau of Standards.

TOTAL 14-26 weeks

Gene O. Jones